AMSAT News Service Weekly Bulletins
Issue: ANS-308
Date: 2018-11-04
Sources: amsat-ans-2018-ans-308-weekly-hyperkitty-fa01adb176.txt

---

AMSAT NEWS SERVICE
ANS-308

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

In this edition:

* AMSAT Announces Senior Leadership Positions for 2018
* Recordings and Videos From AMSAT-NA 2018 Symposium
* News From AMSAT South Africa
* Polish Students’ Satellite - PW-Sat2
* ARISS Receives Yasme Foundation Grant
* Upcoming Satellite Operations
* ARISS News
* Shorts From All Over

SB SAT @ AMSAT $ANS-308.01
ANS-308 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 308.01
>From AMSAT HQ KENSINGTON, MD.
November 4, 2018
To All RADIO AMATEURS
BID: $ANS-308.01

AMSAT Announces Senior Leadership Positions for 2018

The 2018 AMSAT Board of Director's Meeting was held November 1-2, 2018 at the US Space and Rocket Center Marriott Hotel in Huntsville, Alabama. The following positions were announced during the meeting.

AMSAT Senior Leadership Team

President	Joe Spier, K6WAO
Executive Vice President	Paul Stoetzer, N8HM
Secretary	Clayton Coleman, W5PFG
Treasurer	Keith Baker, KB1SF/VA3KSF
Manager	Martha Saragovitz
VP Operations	Drew Glasbrenner, KO4MA
VP Engineering	Jerry Buxton, N0JY
VP Educational Relations	Alan Johnston, KU2Y
VP for Human Spaceflight	Frank Bauer, KA3HDO
VP Marketing	Open

VP User Services Open

Other Appointments announced by the President include:

AMSAT Ambassador Coordinator	Clayton Coleman, W5PFG
AMSAT IARU Representative	Drew Glasbrenner, KO4MA
Hamvention Operations Manager	Phil Smith, W1EME
AMSAT Journal Editor	Joe Kornowski, KB6IGK
ANS Senior Editor	EMike McCardel, AA8EM
ARISS International Delegates	Dave Taylor, W8AAS
	Chet Latawiec, VE3CFK
IT Team Leader	Joe Fitzgerald, KM1P
AMSAT Store	Bruce Paige, KK5DO
Web Content Manager	Open

AMSAT Board of Directors

Joe Spier, K6WAO
Paul Stoetzer, N8HM
Clayton Coleman, W5PFG
Tom Clark, K3IO
Jerry Buxton. N0JY
Bruce Paige, KK5DO
Mark Hammond, N8MH
Peter Portanova, W2JV (First Alternate)
Scott Harvey, KA7FVV (Second Alternate)

[ANS thanks the AMSAT Board of Directors for the above information]

Recordings and Videos From AMSAT-NA 2018 Symposium

A recording of the livestream of the 2018 William A. Tynan W3XO Memorial Space Symposium, in Huntsville, AL is available at: https://www.youtube.com/user/AMSATNA/

Video of WB8ELK high altitude balloon launch from the Symposium can be found at: https://www.facebook.com/paul.stoetzer/videos/10113653475736994/

Drew Glasbrenner KO4MA has posted his video of the Symposium ARISS contact at: https://www.facebook.com/glasbrenner/videos/10155564640766750/

Patrick Stoddard WD9EWK has posted a raw audio recording of the same ISS flyover, but from Arizona which can be found at: https://tinyurl.com/ANS308-ISS-Stoddard

[ANS thanks JoAnne K9JKM for the above information]

News From AMSAT South Africa

AN SDR CUBESAT ON THE CARDS

AMSAT SA has announced that parallel to its analogue Kletskous CubeSat, the group is working on a digital project featuring a Software defined transponder. Called AfriCUBE, the CubeSat will use

the same space frame as KLETSKOUS. Anton Janovsky is current building a prototype transponder. AMSATSA is inviting persons interested in becoming part of the development team to send their details to admin(a)amsatsa.org.za.

Meanwhile the development and final construction of the AMSAT SA KLETSKOUS is plagued by electronic component obsolescence. This forces unwanted design changes to be made to ensure that when the time comes to construct the final launch unit, the main components are still available. The KLETSKOUS team decided to freeze the design of KLETSKOUS and purchase a quantity of devices to proactively mitigate future obsolescence. This decision will also speed up the process of putting a final satellite on the table. "Every time we change designs to mitigate for the discontinued components, it is like starting the design afresh, often creating new problems that have to be solved", Hannes Coetzee, ZS6BZP said. "By freezing the design, in other words making a final decision on the main specialised devices to be used, we will be able to speed up the process of putting a flight ready unit on the table." KLETSKOUS is not a textbook design. Most of the sub-components that will make up KLETS KOUS are designed and being built by the volunteer team. "We do not have the finances to go out and purchase sub-units and simply wire them up," Hannes said.

AMSAT SA is holding its 2019 Space Symposium on Saturday 16 March 2019 in Gauteng. The theme of the conference is "Space Science with Amateur Radio." Paper proposals are invited. Send your synopsis to admin(a)amsatsa.org.za.

[ANS thanks SOUTH AFRICAN RADIO LEAGUE NEWS for the above information]

Polish Students’ Satellite - PW-Sat2

Polish satellite - PW-Sat2 is scheduled as soon as early as 19th November 2018 launch of 4. . It’s primary mission is a technological tests of sail-based deorbit system. The PW-Sat2 is one of the payloads in
SpaceFlight SSO-A The SmallSat Express mission aboard SpaceX’s Falcon 9 rocket. Please be advised that planned launch date may change since it’s quite common for orbital rockets launches - be prepared and follow our socials!

Radio link

The satellite is equipped with full duplex communication module TRxVU Rev. B from Innovative Solutions in Space BV. It operates in amateur bands UHF (downlink) and VHF (uplink). Antenna module consists of two dipole antenna (for uplink/downlink) with linear polarisation. Downlink power equals to 27 dBm (0.5 W). Downlink signal utilizes BPSK modulation, data scrambling according to G3RUH and AX.25 protocol. By default, the satellite transmits its downlink signal at 1200 bps, however it might be changed on request by the OPERation team (via uplink telecommand) up to 9600 bps. Currently set bitrate will be published on PW-Sat2’s Twitter profile, however determination of actual bitrate should be fairly easy by looking at signal spectrum.

What data will be transmitted?

Every 60 seconds the satellite transmits a beacon frame full of

telemetric data. 229-bytes long payload of the beacon frame contains the most important information about satellite's state - among others - temperatures of main subsystems, battery voltage, solar power, on-board computer mission time and experiments state. Other data, such as historical telemetry, experiments data, photos from cameras will be send on request from PW-Sat2's OPERation team. There is one exception from this rule - deorbit sail experiment will transmit its results on-line (since after sail deployment random tumbling is expected to occur resulting in signal loses and solar energy decrease). Downlink signal of PW-Sat2 will be opened for everyone to receive, decode and interpret data!

HAM radio tools to receive PW-Sat2

HAM radio community plays important role in almost every cubesat mission - receiving and sharing acquired signal with satellites' owners. Our team has prepared set of tools helping in receiving and demodulation of PW-Sat2 radio signal and upload to cloud-based service afterwards. We believe that data shared to us by community will have big impact on our mission.

Prepared desktop application is available on Linux and Windows platforms (however Ubuntu Linux is the main supported OS). It allows for signal reception utilizing software defined radio receivers (SDR): RTL-SDR, FUNcube Dongle Pro+, ADALM-Pluto SDR as well as "traditional" analogue radio receivers with single sideband demodulator (SSB) via computer's line-in. Acquired signal from radio receiver is demodulated and deframed. Correctly received frames are classified by means of their type and uploaded to cloud-based application (radio.pw-sat.pl) prepared thanks to co-operation with SoftwareMill company. The cloud-based application allows for frames collection, sharing and telemetry decoding (for beacon frames, labeled as "telemetry frame"). There are available additional features like charts presenting the most important telemetry data.

How to start receiving?

Detailed information are available in our Wiki - https://github.com/PW-Sat2/HAMRadio/wiki. A good starting point is to take a look at "Quick start guide". The wiki pages will be updated as new information (e.g. about orbit, TLE data) will be available.

We encourage to try the software (desktop and cloud parts) right now! In case of any problems - don't hesitate to mail us (by an e-mail, Messenger, in comment etc.), create an issue on GitHub (https://github.com/PW-Sat2/HAMRadio/issues) or simply ask in this thread!

Mission status information

Up to date information about mission status will be published on our Twitter profile - don't miss anything, follow us now!

Contests

To encourage you to listen to PW-Sat2 and honour your contribution we would like to issue QSL cards for every HAM radio who will send us (to radio.pw-sat.pl) at least one correct PW-Sat2 frame.

Additionally we've prepared contest in three categories:
* the first received and uploaded frame,
* the last received and uploaded frame,
* the most received and uploaded frames.

Shortly after mission we will reveal the winners and honour with
packs of PW-Sat2-related gadgets!
For more about contests see (https://pw-sat.pl/en/ham-contest/).

[ANS thanks MGUMIELA via QRZ.com for the above information]

ARISS Receives Yasme Foundation Grant

The Board of Directors of The Yasme Foundation announces that it has made a significant grant to ARISS (Amateur Radio on the International Space Station, <www.ariss.org>) in support of the Critical Infrastructure Fund.

Yasme has supported this important upgrade to the ISS amateur station since the effort began and challenges other organizations and individuals to support it, as well. As of late 2018, ARISS is the only non-commercial entity being considered for NASA's Deep Space Gateway program, indicating the importance with which the space program views amateur radio. Putting and keeping amateur radio in space is a significant expense and needs the support of the entire amateur community.

* * * * *

The Yasme Excellence Award is presented to individuals and groups who, through their own service, creativity, effort and dedication, have made a significant contribution to amateur radio. The contribution may be in recognition of technical, operating or organizational achievement, as all three are necessary for amateur radio to grow and prosper. The Yasme Excellence Award is in the form of a cash grant and an individually- engraved crystal globe.

The Board of Directors of The Yasme Foundation is pleased to announce the latest recipients of the Yasme Excellence Award:
Brian Machesney, K1LI, and Michelle Guenard – in recognition of their extraordinary efforts on behalf of Commonwealth of Dominica communities in the wake of the 2017 hurricane season. Their efforts included fund-raising, delivery of communications supplies, on-site support, and application of amateur radio technologies to support the relief efforts which continue today.

Fred Kleber, K9VV/KP2 – in recognition of Fred's leadership and technical skills that support the Virgin Island's emergency communications capabilities. Fred has been a key player long before hurricanes Irma and Maria devasted the islands. He is hard at work today re-building and extending the interisland communication systems even after his own station suffered extensive damage.

Zorro Miyazawa, JH1AJT – for his extensive promotion of amateur radio in developing counties. Governments and telecommunications administrators in Bangladesh (S2), Bhutan (A5), Cambodia (XU), Eritrea (E3), and Myanmar (XZ) have benefited from Zorro's patient and skillful efforts, supporting his own government and his fellow amateurs in Japan and around the world.

Stu Phillips, K6TU – for contributions to amateur radio through his Propagation and DX Strategy website, www.k6tu.net. In particular, his innovative tools, free for amateur use, enhance the use of the High Frequency Terrain Analysis (HFTA) program developed by Dean Straw, N6BV, another Excellence Award recipient in 2012.

Randy Wright, W6CUA – in recognition of his long service to the Yasme Foundation as our Awards Manager. His steady efforts and exacting attention to detail and customer service are greatly appreciated.

* * * * *

The Yasme Foundation is a not-for-profit corporation organized to support scientific and educational projects related to amateur radio, including DXing (long distance communication) and the introduction and promotion of amateur radio in developing countries. For additional information about The Yasme Foundation, visit our website at <www.yasme.org>.

Ward Silver, N0AX
President The Yasme Foundation

Board of Directors:
Ward Silver, N0AX, President and Director
Ken Claerbout, K4ZW, Vice-President, Secretary and Director
Rusty Epps, W6OAT, Treasurer and Director
Hans Blondeel Timmerman, PB2T, Director
Martti Laine, OH2BH, Director
Fred Laun, K3ZO, Director
Robert Vallio, W6RGG, Director
Marty Woll, N6VI, Director

[ANS thanks OPDX for the above information]

Upcoming Satellite Operations

Super Road Trip (EMxx, DMxx, DNxx, ENxx) – November 8-11, 2018

Wyatt, AC0RA, has a special event call sign W5Q, and he's heading out on the road. The primary focus will be on 6m MSK144 and will also work satellites as time allows. Planned grid stops include EM08/18, EM07, EM06/16, EM05, DM94/95, DM84/85, DM86/96, DM77, DM87/97, DM88/98, DM89/99, DN80/90, DN91, and EN00. Wyatt will be using WSJTX v1.9.1 for MSK144 and will also use Contest Mode. Check the W5Q QRZ page for more information and follow him on Twitter @ https://twitter.com/WyattAC0RA

South Texas Grid Expedition (EL06, EL07, EL08, EL15, EL16, EL17, EL18) – November 11-15, 2018

Glenn, AA5PK, will be travelling through South Texas, November 11th-15th. Barring unforeseen circumstances, he will activate EL06, EL07, EL08, EL15, EL16, EL17 and EL15. Glenn will be on both FM and linear satellites and will post specific pass announcements on Twitter, https://twitter.com/AA5PK. He will also be position beaconing on APRS as AA5PK-9.

Bermuda (DXCC NA-005) – November 12-14, 2018

Tom, N2YTF, will be operating as N2YTF/VP9/P from Bermuda, NA-005 vacation style Nov. 12, 13, 14; all FM passes (and perhaps a few transponder birds). Tom will also be working HF QRP portable from the beach. Tom is looking for a 2m ssb tropo path to some US super station(s). If interested, contact him directly.

Key West, FL (EL94) – November 27 – December 1, 2018

Tanner, W9TWJ, will be vacationing in Key West, Florida from November 27th to December 1 , 2018. While there, he will work as many FM passes as he can (holiday style). Keep an eye on his Twitter feed for pass announcements, https://twitter.com/twjones85

RMS Queen Mary (DM03) – December 15, 2018

Patrick , WD9EWK, will be part of a day of satellite operating from a deck on the RMS Queen Mary, docked at Long Beach in southern California, on Saturday 15 December 2018. Operations will be portable, almost like a Field Day, and should include FM, SSB, and possibly packet. All operations from the Queen Mary will be as W6RO, the call sign for the wireless room on the
ship operated by the Associated Radio Amateurs of Long Beach.
Depending on staffing in the W6RO wireless room, there may also be HF activity during the satellite operation.
QSLing for the W6RO satellite activation will be handled per the procedure on W6RO's QRZ page: http://www.qrz.com/db/W6RO
Please submit any additions or corrections to ke4al (at) yahoo.com
Updated October 25, 2018

[ANS thanks Robert KE4AL for the above information]

ARISS News

```
**********************************************************************
*  AMSAT and ARISS are currently supporting a FundRazr campaign      *
*  to raise $150,000 for critical radio infrastructure upgrades      *
*  on ISS. The upgrades are necessary to enable students to          *
*  continue to talk to astronauts in space via Amateur Radio.        *
*                                                                    *
*                          $13,700 raised                            *
*                                                                    *           *
*        For more information and to DONATE TODAY visit              *
*                                                                    *
*    https://fundrazr.com/arissnextgen?ref=ab_e7Htwa_ab_47IcJ9       *
**********************************************************************
```

Successful ARISS contacts completed since October 18, 2018

+ 2018-10-22 13:05 UTC between Astronaut Serena Aunon-Chancellor KG5TMT using ISS callsign NA1SS and Ashford School, Ashford, Connecticut, USA. Contact was direct] via KZ1M. ARISS Mentors were Steve W1HQL and Ryan W4NTR.

+ 2018-10-23 09:14 UTC between Astronaut Alexander Gerst KF5ONO using ISS callsign DPØISS and Integrierte Gesamtschule Osterholz-Scharmbeck, Osterholz – Scharmbeck, Germany. Contact was direct via DN3HB. ARISS Mentor was Peter IN3GHZ.

+ 2018-10-23 09:14 UTC between Astronaut Alexander Gerst KF5ONO using ISS callsign DPØISS and Gymnasium Soltau, Soltau, Germany. Contact was direct via DN5ABG. ARISS Mentor was Peter IN3GHZ.

+ 2018-10-24 08:22 UT between Astronaut Alexander Gerst KF5ONO using ISS callsign DPØISS and Martin-Andersen-Nexö-Gymnasium Dresden/DLR_School_Lab TU Dresden, Dresden, Germany. Contact was

direct via DLØTSD. ARISS Mentor was Peter IN3GHZ

+ 2018-10-24 08:22 UT between Astronaut Alexander Gerst KF5ONO using ISS callsign DPØISS and Liborius-Gymnasium Dessau, Dessau-Roßlau, Germany. Contact was direct via DKØLG. ARISS Mentor was Peter IN3GHZ

+ 2018-10-24 17:48 UTC between Serena Aunon-Chancellor KG5TMT using ISS callsign NA1SS and Delcastle Technical High School, Wilmington, Delaware. USA. Contact was direct via K2CCW. ARISS Mentor was Keith W5IU

+ 2018-10-31 14:56:40 UTC between Astronaut Serena Aunon-Chancellor KG5TMT using ISS callsign NA1SS and Tallmadge Community Learning Center, Lancaster, Ohio, USA. Contact was direct via K8QIK. ARISS Mentors were Gordon KD8COJ and John K4SQC.

+ 2018-11-02 14:50:19 UTC between Astronaut Serena Aunon-Chancellor KG5TMT using ISS callsign NA1SS and Pathfinder Regional Vocational Technical High School, Palmer, MA, USA. Contact was direct via KB1MDS. ARISS mentors were Steve W1HQL & Ryan W4NTR.

Upcoming ARISS Contact Schedule as of 2018-11-02 17:00 UTC

Bishop O'Connell High School, Arlington, VA, telebridge via W6SRJ
The ISS callsign is presently scheduled to be NA1SS
The scheduled astronaut is Serena Aunon-Chancellor KG5TMT
Contact is a go for: Thu 2018-11-08 15:56:28 UTC

Want your school to experience an ARISS contact?
The proposal window opens October 1, 2018 and the proposal deadline is November 30, 2018.

For proposal guidelines and forms and more details, visit:
http://www.ariss.org/hosting-an-ariss-contact-in-the-us.html

[ANS thanks ARISS, Charlie AJ9N and David AA4KN for the above information]

Shorts From All Over

+ Ham radio satellites on 5 Euro coin
  The Bank of Lithuania (Lietuvos bankas) has released a commemorative gold 5 Euro coin featuring the amateur radio satellites LituanicaSAT-1 (LO-78) and LitSAT-1.

  The two CubeSats were launched to the International Space Station (ISS) on January 9, 2014 and deployed from the ISS on February 28. LituanicaSAT-1 carried a FM transponder and a camera while LitSat-1 had a linear (SSB/CW) transponder developed by by William Leijenaar PE1RAH.

  The face of the gold coin features the Lithuanian coat of arms (Vytis) as a star constellation with LituanicaSAT-1 and LitSAT-1 on the reverse.

  Watch A gold coin of 5 euros for technology education:
  https://youtu.be/-R6Q-quon2Y

Numista catalogue entry
https://en.numista.com/catalogue/piec

[ANS thanks Southgate ARN for the above information]

+ Soyuz rocket: 'Faulty sensor' led to launch failure
"Russian space agency Roscosmos said on Wednesday it hopes to resume manned missions with a three-person launch to the ISS on 3 December."
https://www.bbc.com/news/world-europe-46055960

[ANS thanks The BBC for the above information]

+ FCC Satellite Related Filings

For easier navigation of US FCC Satellite related filings Luke Rehmann has built an RSS feed of the FCC's ELS and IBFS systems.

The FCC Experimental Licensing System provides companies with temporary authorization to conduct temporary experimental wireless communication lab-testing, space launch/recovery communication, and other short-duration wireless communication needs
https://fcc.report/ELS/

The International Bureau administers international telecommunications and satellite programs and policies, including licensing and regulatory functions. The bureau also promotes pro-competitive policies abroad, coordinates global spectrum activities and advocates U.S. interests in international communications and competition
https://fcc.report/IBFS/

[ANS thanks AMSAT-UK for the above information]

+ Slade Stevens 2E0SQB announced via Twitter, "I'm happy to announce that I am the new editor for #oscarnews I look forward to working with the current editors until they retire at the end of the year.

[ANS thanks Slade 2E0SQB for the above information.]

+ The following satellites have been added to AMSAT's Keplerian elements distribution:

CubeBel 1 - NORAD CAT ID 43666
Ten-Koh - NORAD CAT ID 43677

Thanks to Nico Janssen, PA0DLO, for the detailed doppler identification of these two satellites.

[ANS thanks Ray WA5QGD for the above information]

+ New sample edition of NZART Break-In magazine

New Zealand's national amateur radio society, NZART, has made the Jan/Feb 2018 edition of their magazine Break-In available as a free PDF

Yes an old edition but well worth the read!

The magazine features the popular columns Digital Modes by Murray Greenman ZL1BPU and Satellite Orbits by Alan Cresswell ZL2BX. On pages 28-30 there is an interview with FT8 developer Joe Taylor K1JT.

Download from
http://www.nzart.org.nz/assets/breakin/sample/BreakIn-JanFeb-2018.pdf

[ANS thanks VK1WIA News for the above information]

+ Recordings and Videos From AMSAT-NA 2018 Symposium

Pass Recorder is a small application that records audio from satellite passes based on tracking data it receives from the commonly used SatPC32 application, pass recorder will sit in the background waiting for a pass to be above 0 degrees and record the audio to a wav file which you can use for logging purposes or just for storing passes to listen to later for enjoyment.

Pass Recorder is provided free of charge with a donation request if you would like to support the author.

Information can be found at https://www.2m0sql.com/pass-recorder/

[ANS thanks Peter 2M0QSL for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
EMike McCardel, AA8EM
aa8em at amsat dot org